

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

REPORT OF EXAMINATION

TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

Surface Water (issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)

Ground Water (issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

PRIORITY DATE April 26, 1991	APPLICATION NUMBER G2-28122	PERMIT NUMBER	CERTIFICATE NUMBER
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NAME Dave Carey			
ADDRESS (STREET) 2145 66th NW	(CITY) Olympia	(STATE) Washington	(ZIP CODE) 98502-3302

PUBLIC WATERS TO BE APPROPRIATED

SOURCE
A well

TRIBUTARY OF (IF SURFACE WATERS)

MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE 35	MAXIMUM ACRE-FEET PER YEAR 5.5
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QUANTITY, TYPE OF USE, PERIOD OF USE
5.5 acre-feet per year Multiple domestic supply Year-round, as needed

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION-WITHDRAWAL
700 feet south and 700 feet west of the east quarter corner of Section 21.

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) NE $\frac{1}{4}$ SE $\frac{1}{4}$	SECTION 21	TOWNSHIP N. 19	RANGE, (E. OR W.) W.M. 2W	W.R.I.A. 13	COUNTY Thurston
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RECORDED PLATTED PROPERTY

LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)
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LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

Lots 35 and 36 and the east 324 feet of Lot 37 of Athens Beach as recorded in Volume 8 of Plats at page 88, Records of Thurston County, Washington.

DESCRIPTION OF PROPOSED WORKS

A 6" x 179' drilled well. Proposed 3-5 horsepower pump discharging to 4 and 3 inch distribution lines to 11 lots. Associated pressure system and storage tank.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE:

Started

COMPLETE PROJECT BY THIS DATE:

November 1, 1993

WATER PUT TO FULL USE BY THIS DATE:

November 1, 1994

REPORT

BACKGROUND:

Under the provisions of Chapters 90.03 and 90.44 Revised Code of Washington (RCW), Dave Carey of Olympia, Washington filed an application to withdrawal public ground water from a well. The amount requested is 35 gallons per minute for the purpose of multiple domestic supply. The application was accepted for processing, assigned Application No. G2-28122, and given a priority date of April 26, 1991.

The legal notice of the applicant's proposed withdrawal was duly published in "The Olympian" of Olympia, Washington on May 9 and 16, 1991. No protests were received as a result of the public notice.

I recommend issuance of a permit based on the following report.

INVESTIGATIONS:

On July 22, 1992, I conducted a field investigation. Mr. Carey was not present during the site inspection, but was contacted later by phone for additional information.

Other investigations included a review of area water well reports, recorded water rights, water right claims, and an evaluation of information submitted with the application.

As a result of these investigations the following is reported.

Location and Description of Site

This project site known as Cooper Point Estates is located off of Cooper Point Road approximately 500 feet north of 59th Avenue. The main access road had been roughed in to the proposed 11 lot development. The well has been constructed about 100 feet off of Cooper Point Road within the area to be developed.

System Description

Well Depth: 179 feet
Casing Diameter: 6 inch
Static Water Level: 127' 6¾"
Pump Size: 3 - 5 hp
Screen Depths: 85' to 177'-6".
Yield: 36 gpm
Driller: Carpenter Drilling
Main Line: 4 & 3 inch to lots

A 4.5 hour pump test was conducted by the driller on September 4, 1991. The yield was 36 gallons per minute with 26'-10¾" drawdown. The water level recovered to the pretest static level within 20 minutes after pumping ceased.

Aquifer Characteristics

The applicant's well is completed in an aquifer formation consisting of sand, gravel and clay. Overlying layer are composed of clay, fine sand, wood chips and gravel.

Report Continued

This well is located within 1,600 feet of Budd Inlet and 2,700 feet of Eld Inlet at an elevation of approximately 125 feet. The well is completed approximately 52 feet below sea level. Withdrawals from this well may potentially contribute to seawater intrusion. In order to protect this well and those located seaward, chloride monitoring will be required to detect intrusion.

Effect on Existing Rights

The following groundwater records are on file with the Department of Ecology within a half mile of the subject well:

- Eight groundwater right certificates have been issued that authorized a combined withdrawal rate of 760 gpm and an annual allotment of 185 acre-feet.
- Twenty-one water well reports and numerous groundwater claims are on file that appear to be within the same half mile area of the subject well. These wells range in depth from 65 to 581 feet below ground surface. Approximately one quarter of these wells appear to be completed within the same water bearing zone as the applicant's well.

Yields of most wells in this area around the depth of the applicant's well have production rates from 10 to 50 gpm. Generally this is an area where ground water is adequate for domestic and small irrigation supply.

Based on well spacing in this area and the withdrawal rate requested, interference with the production of neighboring wells is unlikely. However, the applicant is reminded of the responsibility towards existing right holders and advised that the withdrawal and pumping rate from this well may need to be regulated in the future if senior rights are injuriously impaired.

Water Requirements

Water requirements for multiple domestic supply should not exceed an average of 450 gallons per day per service. For eleven services this amounts to 5.5 acre-feet per year.

CONCLUSION:

In accordance with Chapters 90.03 and 90.44 RCW, I find there is water available for appropriation from the source in question, that the appropriation as recommended is a beneficial use, and should not impair existing rights or be detrimental to public welfare.

RECOMMENDATIONS:

I recommend approval of this application and issuance of a permit to allow appropriation of 35 gpm, 5.5 acre-feet per year from a well for multiple domestic supply of eleven services. The period of use shall be year round as needed. The total annual withdrawal shall not exceed 5.5 acre-feet per year.

Approval shall be subject to the following provisions.

The water appropriated under this application will be used for public water supply. The State Board of Health rules require public water supply owners to obtain written approval from the Office of Water Supply, Department of Health, Mail Stop LD-11, Building 3, Olympia, Washington 98504, prior to any new construction or alterations of a public water supply system.

Installation and maintenance of an access port as described in WAC 173-160-355 is required. An air line and gauge may be installed in addition to the access port.

Chloride concentration analysis shall be performed prior to system use, then quarterly when the system is in use, by a laboratory accredited by the Department of Ecology. The resulting data shall be submitted to the Department of Ecology, Southwest Regional Office. If the chloride concentration exceeds 100 mg/L, the withdrawal rate shall be reduced or the pump setting raised to reduce the chloride level to below 100 mg/L.

This permit may be subject to implementation of the minimum requirements established in the Interim Guidelines for Public Water Systems Regarding Water Use Reporting, Demand Forecasting Methodology and Conservation Programs, July 1990 (attached), and as revised.

Under RCW 90.03.005 and 90.54.020(6), conservation and improved water use efficiency must be emphasized in the management of the State's water resources, and must be considered as a potential new source of water. Accordingly, as part of the terms of this permit, the applicant may be required to prepare and implement a water conservation plan approved by Department of Health. The standards for such a plan may be obtained from either the Department of Health or the Department of Ecology.

The Water Resources Act of 1971 specifies certain criteria regarding utilization and management of the waters of the State in the best public interest. Favorable consideration of this application has been based on sufficient waters available, at least during portions of the year. However, it is pointed out to the applicant that this use of water may be subject to regulation at certain times, based on the necessity to maintain water quantities sufficient for preservation of the natural environment.

The applicant is advised that notice of proof of appropriation of water (under which the final certificate of water right is issued) should not be filed until the permanent diversion facilities have been installed, and the system is currently in use. This includes installation of a mainline system capable of delivering the recommended quantity of water to an existing or proposed distribution system within the area to be served, and fulfillment of all other terms of this permit.

At such time that the Department of Ecology determines the regulation and management of the subject waters is necessary and in the public interest, an approved measuring device shall be installed and maintained in accordance with RCW 90.03.360 and WAC 508-64-020 through -040.

REPORTED BY: Vicki Windust Date: January 4, 1993

The statutory permit fee for this application is \$20.00.